

BOOTSTRAP CAPACITOR CHARGE CIRCUIT
WITH LIMITED CHARGE CURRENT

ABSTRACT OF THE DISCLOSURE

A bootstrap capacitor charging circuit comprising a bootstrap capacitor, a semiconductor switch controlled by a control terminal, the control terminal coupled to a source of charging current for the bootstrap capacitor, the switch having two main terminals, the first main terminal coupled to the source of charging current and the second main terminal coupled to the bootstrap capacitor, and a voltage regulator device having a regulation voltage and coupled to the control terminal of the switch, the switch turning off when a voltage across the capacitor approximately equals the regulation voltage of the voltage regulation device, thereby limiting the charging current into the bootstrap capacitor.